

Pest Management for the Control of Two Major Diseases of Tomato in Sudan

Ahmed Hashim Ahmed, Mohamed Osman Idris, Mustafa Mohamed Elbella, Jamal
Mohamed Abdalmoula and Ahmed Ali Elhassan

Faculty of Agriculture, University of Khartoum, Shambat, Sudan

ABSTRACT

Tomato leaf curl and alternaria leaf blight are the most serious diseases of the tomato crop in Sudan. The present study was conducted in the winter season of 2010/2011 to evaluate the effect of covering the tomato seedling with mosquito nets in the nursery and frequently spraying them with confidor insecticide. After six weeks, the seedlings were transplanted into three farmers fields in three locations north of Khartoum; namely, Saggai, Karary and Shambat, to serve as demonstration plots for the tomato growers. The results revealed significant decrease in the leaf curl disease incidence by 47.3%, 30.7% and 29.3% at Saggai, Karary and Shambat locations, respectively. The results of field spraying with Amstar Top fungicide in the farmers fields decreased the incidence of earl blight by 10.3%, 15.0%, 13.8% at Karary, Saggai and Shambat, respectively. The combined effects of covering the tomato seedlings in the nursery and fungicide spraying in the field resulted in significant increase in tomato yield at Karary and Saggai by 25.5% and 39.2%, respectively, but the increase in yield at Shambat was not significant due to the abnormal inoculums pressure on the plot. The farmers at Karary and Saggai had already adopted the present disease control techniques.

Key words: Tomato seedling; mosquito net; leaf curl; leaf blight